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AUTHOR Ross, Steven M.; And Others
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ABSTRACT

While there have been few reports of psychological assessment of eating disordered patients, studies using the Minnesota Multiphasic Personality Inventory (MMPI) to assess eating disordered subjects found that female anorexics had remarkably similiar profiles (score elevations of 70 or more) to female schizophrenics on the Depression (D), Psychopathic Deviate (Pd), Psychasthenic (Pt), Paranoia (Pa), and Schizophrenic (Sc) scales of the MMPI. MMPI profiles of bulimic women and women with alcohol or drug abuse problems were also similar. To assess and compare the personality characteristics of anorexics and bulimics using the MMPI and to compare these results to the earlier results, volunteers who met the Diagnostic and Statistical Manual (DSM III) criteria for anorexia and bulimia (37 female bulmics and 4 female anorexics) were interviewed, given a diagnosis, and administered the MMPI on the same day. Analyses of results showed that both bulimics and anorexics had similar profile configurations. Remarkable similarities were also obtained in profile configurations when comparing these results with the earlier results. The findings suggest that elevated D, Pd, Pt, and Sc scores for women, even when not all scale points are above T-scores of 70, should alert the clinician to the possibility of an eating or substance abuse disorder. (MCF)

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Evidence for an Anorexic/Bulimic MMPI Profile

Steven M. Ross
VA Medical Center and
Department of Psychiatry
University of Utah School of Medicine
Salt Lake City, Utah

Ellen H. Todt
Independent Practice
Salt Lake City, Utah

Mark A. Rindflesh
Department of Psychiatry
University of Utah School of Medicine
Salt Lake City, Utah

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Evidence for an Anorexic/Bulimic MMPI Profile

While the incidence of eating disorders has been increasing in recent years, there have been few reports of the results of psychological assessment of eating-disordered patients (Small, Madero, Gross, Teagno, Leib and Ebert, 1981; Garner and Bemis, 1982). A very extensive literature has been developed on the use of the Minnesota Multiphasic Personality Inventory (MMPI; Dahlstrom and Welsh, 1960) with various clinical populations. The MMPI is well suited for initial attempts at assessing and describing a little studied but increasing diagnostic category, since results may be compared with related clinical groups psychometrically and theoretically.

Two studies were found in the literature which used the MMPI to assess eating-disordered subjects. Small et al. (1981) reported on the use of the MMPI and WAIS to assess intellectual and personality functioning of a group of 14 female anorexics. These subjects were compared with a group of 14 female schizophrenic subjects in regard to intellectual functioning and MMPI profiles. Remarkable profile similarities were obtained between groups, i.e., both groups showed scale score elevations of 70 or more on Depression (D), Psychopathic Deviate (Pd), Psychasthenia (Pt), Paranoia (Pa) and Schizophrenia (Sc). Although the elevations were in slightly different order, means did not differ significantly and the product-moment correlation between profiles was .83. Hatsukami, Owen, Pyle and Mitchell (1982) compared MMPI profiles of bulimic women and women having alcohol or drug abuse problems. Similar mean profiles were obtained between groups and were characterized by elevations on scores D, Pd, Pt, and Sc. Hatsukami et al. (1982) hypothesized that the similarities between the groups may have been due to commonalities in loss of control over the substance, preoccupation with the substance and use of the substance to cope with stress or other negative feelings, and a tendency to remain secretive with regard to the substance use behavior. Both groups were also hypothesized to have a tendency to persist in the behavior despite undesireable consequences such as social isolation and medical problems.

The present study was undertaken to assess and compare the personality characteristics of anorexics and bulimics using the MMPI and to compare these results with those obtained earlier by Small et al. (1981) and Hatsukami et al. (1982).

Method

Subjects

Forty-five volunteers who met DSM III criteria for bulimia and anorexia were recruited via an ad in a university newspaper. Forty-one females and four males responded. The bulimic (Bul) group was comparised of 37 females. While the four males were assessed, their results were not included in the present study in order to compare results with earlier work. The mean age of Bul subjects was 23.14 years, mean weight was 120.15 lbs. and mean years of education was 14.02 (S.D. of 1.0). The anorexic (An) group was comprised of four females having a mean age of 23.0 years, mean years of education of 14.0 (S.D. of 2.0), and mean weight of 81.0 lbs. A third group of subjects who were part of the Bul group was also identified. These subjects not only currently met DSM III criteria for bulimia but also had a history of anorexia. Seven subjects were recruited with these characteristics. Their mean age was 25.43 years, mean weight was 105.6 lbs. and mean years of education was 12.5 (S.D. of 2.07). Employing the diagnostic rules of DSM III, however, this third group of subjects was diagnosed as bulimic. Therefore, they were included in the Bul group for purposes of the major analysis. For purposes of discussion and secondary analysis, however, these results were also reported separately.

Procedure

Subjects were interviewed, given a diagnosis and administered the MMPI on the same day by one of the authors independently of the other two. Two prospective subjects were eliminated who did not meet diagnostic criteria and one was eliminated when she failed to complete the testing.

Results and Discussion

Both Bul and An groups showed very similar profile configurations with elevations at or above T-score of 70 on scales D, Hy, Pt, Sc, and Si for An subjects and D, Pd for Bul subjects. Scales Pt and Sc approached a T-score of 70 with values of 69.05 and 69.68 respectively for Bul subjects. One-way ANOVAs failed to show any significant difference in the distance between individual profile scale means. The product-moment correlation between profiles, based on the D statistic (Nunnally, 1978), was .91.

The seven Bul subjects who had prior histories of An were broken out of the Bul group to determine if their profiles would show any differences from the An or Bul groups. Theoreti-

cally, these subjects (Mx), might be expected to have more elevated profiles since they had a history of two disorders rather than one. Also, Garfinkel, Moldofsky and Garner (1977) have indicated poorer prognosis and more psychopathology with mixed anorexics/bulimics. Profile configurations for the Mx group were highly similar to both An and Bul groups (R =.95 and .95, respectively). One-way ANOVAs, however, confirmed a more generally elevated profile with significantly higher scale scores on D ($p=.055$, $F=3.11$, $df=2,38$), Pd ($p<.04$, $F=3.55$, $df=2,38$) and Si ($p=.006$, $F=5.99$, $df=2.38$) among Mx subjects compared to Bul subjects. Thus, Mx subjects resembled An subjects more than Bul subjects in terms of having more elevated profiles despite similar configurations.

Remarkable similarities were obtained in profile configurations in comparing these results with those obtained by Hatsukami et al. (1982) and Small et al. (1981). A profile comparison of all six groups (An, Bul, Mx compared with An, Bul and Drug/Alcohol of Small et al. '81 and Hatsukami et al. '82) is provided in Figure 1. Means and standard deviations are presented in Table 1. Correlations among the six groups ranged from .86 to .95 and are presented in a matrix in Table 2.

The composite profile obtained across the six groups satisfies Lachar's (1974) rules for the 2-4/4-2 codetype. He describes individuals who obtain this profile as those who ". . often display depression, restlessness and agitation to situational stress. This reaction is characteristic of a long-standing cyclic pattern of poor behavioral control which is followed by exaggerated feelings of guilt. This distress is often relieved after environmental manipulation or the beginning of another period of acting-out. The behavioral patterns of these individuals suggest a self-defeating and self-punitive tendency. Low frustration tolerance and tendency toward addictive states may be present." (p. 124). Graham (1977) also describes these individuals as those who, ". . . Beneath the outer facade of competent, comfortable persons . . tend to be introverted, self-conscious and passive dependent. They harbor feelings of inadequacy and self-dissatisfaction, and they are uncomfortable in social interactions, particularly ones involving members of the opposite sex." (p. 69).

Since almost all subjects were university undergraduates who were not in academic or legal difficulty, a further analysis (Harris, 1968) was done to determine which components of the Pd scale were contributing to its elevation. These analyses showed that components which indicate family discord and social alienation were largely those contributing to the elevation.

Despite the small sample size of the An group in the current study, the results with this group were very similar to

those obtained with a larger sample by Small et al. (1981). For example, in both studies An subjects scored approximately 10 T-score points higher on the Si scale than the Bul subjects in this study and in the Hatsukami et al. (1982) study.

In conclusion, it appears that women having elevations on scales D, Pd, Pt, and Sc, even when not all scale points are above T-scores of 70, should alert the clinician to the possibility of an eating or substance abuse disorder.

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TABLE 1

Mean (SD) MMPI Scores (K-Corrected) of Women with Eating Disorders and Alcohol or Drug Abuse

	An	Bul	Mx	An	Bul	Alc/Drug
				Small et al 1981	Hatsukami et al 1982	
L	48.25(10.90)	49.13(9.28)	48 (4.2)	46.84(6.13)	46.3 (7.6)	46.6 (5.6)
F	66.0 (15.06)	64.87(9.71)	71.71(13.39)	63.35(8.95)	60.5 (9.5)	68.2 (12.3)
K	47.25(11.44)	50.87(8.4)	50.28(7.48)	45.86(6.55)	54.0 (8.2)	50.0 (7.1)
Hs	67.0 (13.49)	60.5 (10.44)	64.86(8.13)	60.30(9.97)	58.2 (12.0)	60.5 (12.9)
D	82.25(20.76)	68.13(13.92)	82.0 (21.06)	75.80(8.81)	70.9 (13.8)	71.9 (14.3)
Hy	70.25(13.57)	65.93(10.48)	67.29(7.32)	62.99(10.52)	62.8 (10.4)	66.2 (10.9)
Pd	78.5 (14.55)	76.67(11.34)	89.43(9.90)	69.40(9.53)	70.6 (13.1)	78.9 (12.6)
Mf	52.0 (4.76)	49.33(9.81)	47.71(9.39)	44.33(12.26)	41.0 (9.7)	45.8 (9.7)
Pa	63.75(11.03)	62.13(11.06)	60.28(14.16)	71.27(9.20)	63.4 (11.1)	68.0 (11.0)
Pt	73.25(12.39)	67.30(9.03)	76.57(12.26)	71.30(10.23)	67.0 (11.9)	70.8 (12.8)
Sc	72.25(17.27)	67.53(11.21)	78.86(16.26)	72.92(12.42)	67.9 (12.9)	75.7 (17.2)
Ma	56.0 (6.98)	63.63(9.67)	59.0 (10.13)	63.68(12.14)	56.7 (10.4)	67.0 (12.1)
Si	70.5 (15.02)	56.3 (10.64)	70.57(14.25)	69.22(8.67)	60.3 (12.0)	60.8 (10.9)

TABLE 2

Correlation Matrix of all Comparison Groups

					Hatsukami et al 1982		Small et al 1981
		An	Bul	Mx	Bul	A/D	An
	An	--	.91	.95	.90	.86	.89
	Bul		--	.95	.93	.98	.87
	Mx			--	.92	.94	.92
Hatsukami et al 1982	Bul				--	.94	.92
	A/D					--	.94
Small et al 1981	An						--

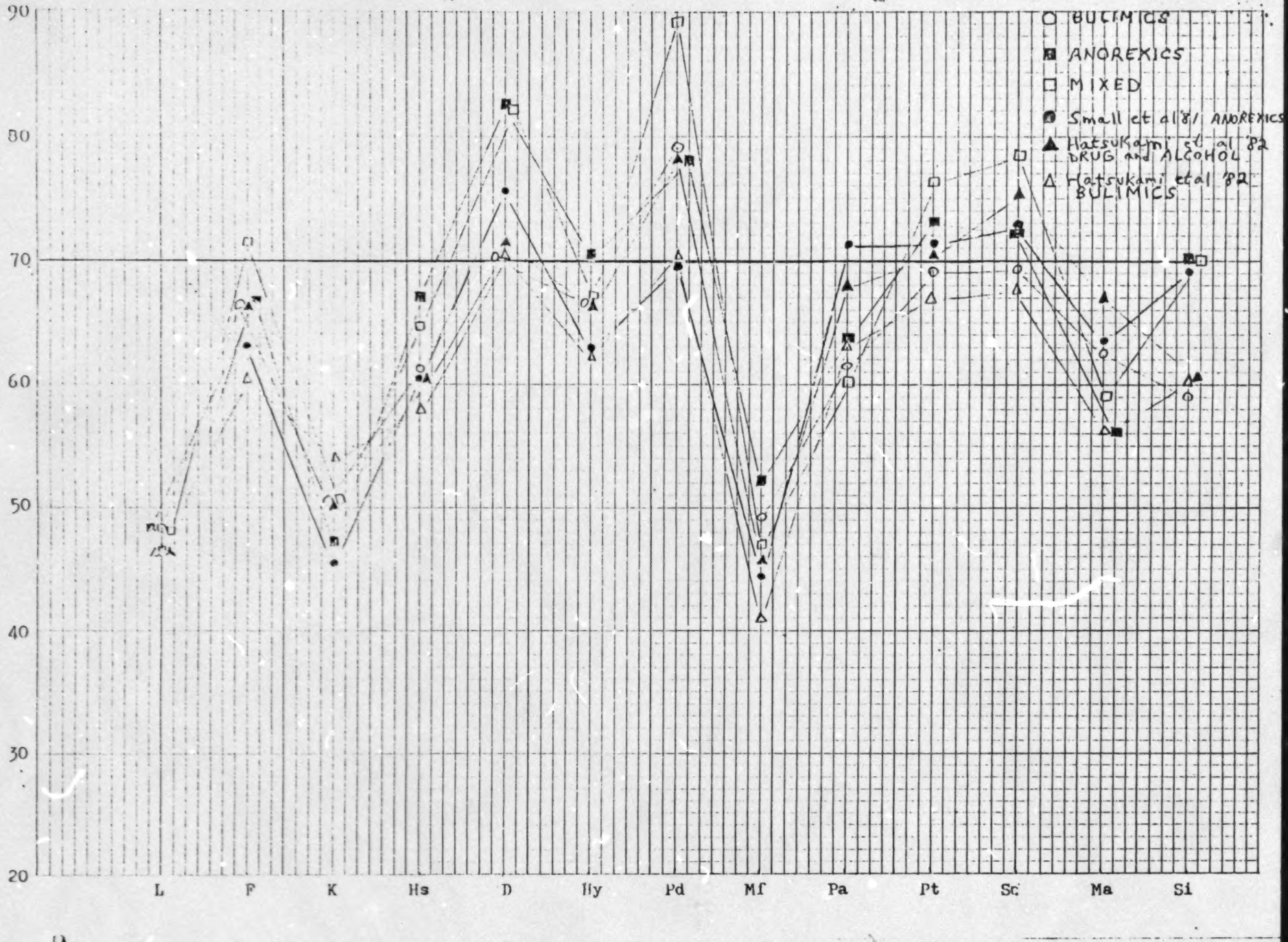

Figure 1. Mean MMPI Profiles of All Groups Compared